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## POISONING WITH ARSENIC.

MEETINGS AT THE FACULTY OF MEDICINE IN PARIS.

WE have seldom attended meetings of a more imposing nature than those recently held in Paris upon a most important question of medical jurisprudence, which has arisen out of the celebrated case of Lafarge, who was poisoned by his wife. The members of the Academies of Sciences and of Medicine, together with the élite of the practitioners resident in the French metropolis, had received invitations from M. Orfila to witness the exposition of his methods of detecting poison by arsenic and antimonial salts: as also a demonstration of the successful mode of treating poisoned animals, by bleeding and diluent diuretics, after evacuating the poison from the primæ viæ.

Nine chemists, employed on the trial of the female culprit at the assizes of Tulle, had failed to detect arsenic in the organs of the poisoned man; but M. Orfila, with Messrs. Bussy and Olivier d'Angers, who were subsequently consulted, succeeded in extracting the arsenic, which they exhibited to the court, in the form of metallic spots on porcelain capsules, and thus dissipated all doubt on the subject.

The chemists previously employed were men of eminence, theoretically acquainted with the mode of detecting arsenic, but not practically experienced in this delicate branch of chemical manipulation; and as thousands of medical practitioners would find themselves in the same predicament, to the great injury of the interests of justice, M. Orfila has rendered a great service to the cause of science, by publicly demonstrating the proper path to be pursued, more especially as he has carefully elucidated the errors likely to be committed, so as to produce failure.

Another question settled at these meetings, relates to the supposed impurity of tests employed in detecting arsenic. It is quite obvious that if the zinc, sulphuric acid, and water employed in the process, themselves contain the metal, we cannot be certain of its existence in the organs submitted to experiment with those tests. All who know M. Orfila are aware of his extreme caution to ascertain the purity of his tests at the moment of using them. When the hydrogen gas has been produced from these substances, nothing can be more easy than to suffer Marsh's apparatus which contains them to work for a quarter of an hour; and if, during that period, the gas inflamed at its exit from a very fine-pointed tube, bent at right angles from the bottle, deposit no arsenical spot on a porcelain capsule properly directed to its point, we may safely

infer that it contains no portion of the metal in question : and if, at the expiration of that period, we add a portion of the suspected matter, prepared as hereinafter to be described, and the arsenical spots can then be made to appear on the capsule, the existence of the poison is fairly demonstrated.

A most absurd and calumnious insinuation has been circulated in relation to the case of Lafarge, that Orfila employed a nitrate of potash which might have been impure from admixture with arsenic. The learned dean, in answer to this, declares that he has examined two hundred different specimens of the commonest saltpetre of commerce, without ever finding them to contain a particle of arsenic.

The main object of the meetings was to demonstrate, by experiments on animals, 1. that arsenious acid and tartarized antimony, either introduced into the primæ viæ, or placed under the subcutaneous cellular tissue, are absorbed, mixed with the circulating fluid, and thus conveyed into all the organs of the animal body. 2. That they sojourn for a certain time in the viscera and muscles, where their presence may be demonstrated by Marsh's apparatus for the production of hydrogen, which dissolves the metallic salt, and again deposits it on a cold surface by combustion of the gas with certain precautions; but that at a very early period after the ingestion of the poison, a part of what has been absorbed is eliminated by the urine, and consequently has abandoned the animal tissues. 3. That this elimination, which is much more rapid for the emetic tartar than the arsenious acid, continues for several days, until the tissues are completely freed of the poison. 4. That on this account it is *indispensable*, in the treatment of poisoning from these venomous substances, to promote the *secretion of urine*, and to abstract the deleterious blood. 5. That, in the majority of cases, it is possible to distinguish whether the arsenious acid and the tartarized antimony, which are extracted from a dead body, had been administered during life, or by cadaveric imbibition after death—this last might occur in cases of poison being put into the stomach, or rectum, of a person deceased, in order to raise a false accusation of poisoning against an innocent individual. 6. That the best mode of detecting minute portions of these mineral poisons, when absorbed into the organs, consists in destroying the greater part or the whole of the organic matters, by first drying them in a porcelain capsule over a fire, and then carbonizing them, either by concentrated azotic acid, or by deflagration with azotate of potash; after which the residuum, if introduced into Marsh's apparatus, modified for the production of hydrogen gas, would come over as metallized gas, if the liquor should contain the metal. 7. That it is always easy to distinguish arsenic from antimony in the form of spots, when deposited from the metallized gas on the porcelain capsule; and that we may be assured these spots neither proceed from the tests employed, nor from the apparatus itself, by suffering the latter to work for a certain time before we add the suspected matter, and by previously making trial of the inflamed gas upon the porcelain capsule destined to receive the metallic precipitate, if any should exist. 8. That the *bones* of man and several animals contain an arsenical compound insoluble in water, and which dif-

fers from the arsenic absorbed by the organs. 9. That we may extract from human muscles a matter which M. Orfila considers to contain an *infinitely minute* proportion of arsenic, sulphur, and an organic substance; which compound differs essentially from the arsenical spots produced from the organs, or the urine, in case of poisoning. 10. That we find in the earth of certain churchyards *infinitely minute* quantities of arsenic *insoluble in boiling water*. 11. Finally, that in legal medicine we may easily avoid any error which the presence of these minute portions of arsenic in bones, muscles, and the soil of churchyards, seems at first sight likely to produce.

The meetings for the above demonstrations were held on Oct. 25, 26, Nov. 1, 2. The experiments on the animals were performed at a preliminary meeting at ten o'clock in the following order; and the results were verified, and other collateral experiments were performed, at two.

First. The œsophagus was cut down upon in the neck of a dog, and tied; the ligature was to be cut away after twenty-eight hours, to show that the animal would eat and drink as usual; from which we might infer, that in the poisoned dogs, with ligature on the œsophagus, to prevent the vomiting of the poison, the animal was not injured by the ligature. All this has been verified.

Second dog. The penis was tied, in order that its urine might be collected and compared with the same fluid in a poisoned dog.

Third dog. Hanged, in order that poison might be introduced into the stomach, and there left for eight days, to show that the adjacent organs would *imbibe* it from the stomach.

Fourth dog. Twelve grains of arsenic in solution were introduced into the stomach by a glass funnel, through an incision in the œsophagus. The dog was to die before 2 o'clock, the hour appointed for the second meeting, which was verified.

Fifth dog. Instead of arsenic, a solution of twelve grains of tartarized antimony was poured into the stomach, as in the last case. Death, as in the last case.

Sixth dog. Three grains of arsenic were placed in the subcutaneous cellular tissue of the thigh. Death predicted, and realized in twenty-four hours.

Seventh dog. Tartarized antimony in the same dose (three grains) was put into the subcutaneous cellular tissue. Death in twenty-four hours, as in the former case.

In the last four animals the penis was tied, in order to preserve the urine; which fluid should be the first to be examined, either in case of suspected poison during life, or after death, whenever it can be obtained. To neglect this in either case would be a capital blunder. During life it may be the only matter within the reach of the practitioner that can be tested; and after death it may happen that all the metallic poison has been eliminated from the organs, but may still be in the urine. The first thing, therefore, to be done in post-mortem examinations of persons suspected to be poisoned, is to secure the urine, if the bladder should contain any; nay, in one of the experiments at the meeting of the 26th, on the dog poisoned by three grains of arsenic, which had been left for

twenty-four hours in the subcutaneous cellular membrane of the thigh, no urine was found, and it could not have escaped from the urethra, in consequence of the penis having been tied; yet the washing of the inner coat of the bladder detached a portion of arsenic from its surface, and the liquor introduced into Marsh's apparatus deposited the metal in the usual way.

The urine of the healthy dog was found to contain no arsenic. This and another experiment on the healthy liver was performed, with the view of imposing silence upon cavillers who are seeking to obtain popularity as the patrons of criminals, by insinuating that normal arsenic is to be found in the human body, which, with certain limitation as to parts, is true; but it is sufficient for medico-legal purposes to show that no normal arsenic is contained either in the liver or in the urine, because in case of poisoning we need not go beyond those parts for the detection of the absorbed metal.

*Detection of Arsenic and Antimony in the Urine.*—These metals, which are soluble in hydrogen, so as to form arsenicated or antimoniated hydrogen respectively, may be easily expected to precipitate in a metallic form, on the combustion of the gas which holds them in solution; but that precipitation would be lost, unless the point of the gaseous flame were directed, *secundem artem*, on some cold surface capable of receiving the deposit, and the necessity of its being a cold surface, such as a white porcelain capsule, arises, as in the case of arsenic, from the volatility of that metal by heat. The experiment, therefore, might be defeated, by using so large a flame as to heat the surface; to prevent this, the point of the tube from which it emanates must be so fine, as to allow a flame not larger than about one sixth of an inch in length; the suspected urine is to be put into Marsh's bottle with zinc, sulphuric acid and water, for the production of hydrogen; if it contain arsenic, the inflamed gas, at the point of a tube inserted into the cork of the bottle, and bent nearly at right angles, will deposit the metal on the porcelain capsule in the form of yellowish brilliant spots, soluble in nitric acid; the dried salt thus produced being convertible into red arseniate of silver by nitrate of silver, if a sufficient quantity of nitric acid had been used; the arsenical spot may be further distinguished from the antimonial by its volatility at the flame-point of pure hydrogen, to say nothing of the difference of aspect which should be learned by actual experiment.

The detection of antimony in urine cannot be effected without evaporating the liquid to dryness, and carbonizing the residuum by boiling in azotic acid, or deflagrating with saltpetre; which latter, it may be remarked, cannot be depended upon for the carbonization of arsenical urine, inasmuch as that metal might be volatilized by the intensity of the deflagration.

After the carbonization of the residuum of antimonial urine, the tartaric acid, which forms the salt of the contained metal, has been decomposed, and the antimony is left in a form insoluble in water, until a portion of chlorhydric acid be added. In this state the coal is to be boiled for two or three hours in distilled water, the decoction is put into the hydrogen bottle, with zinc and diluted sulphuric acid, and the spots

of antimony are speedily precipitated on the porcelain capsule from the inflamed metallized gas.

In treating urine, the operator is liable to be incommoded by froth and albuminous matter floating upon the liquor within the apparatus. To remove this inconvenience when it occurs, let the whole be put into a glass funnel, until the frothy matter be settled on the surface; in which case the clear liquor can be easily separated, and returned into the apparatus.

It will be observed, that the arsenical and antimonial spots are both soluble in nitric acid, and differ little in appearance until after the application of heat, which, by supplying an additional dose of oxygen, converts the arsenious acid into arsenic acid; and this, again, can be decomposed by nitrate of silver, forming the arseniate of silver of a brick-dust color. No such change is produced in the antimonial salt; and it may be well to state, that the spots produced from the *normal* arsenic of muscular fibres differ in color from the *absorbed* arsenic in poisoning. The normal spots are an *opaque white, insoluble in cold nitric acid*, but soluble in the *boiling* acid. They are not convertible into arseniate of silver of a brick-dust color by *neutral* nitrate of silver, after their solution in *boiling* nitric acid has been evaporated to dryness by heat, and they are volatile.

In order to show these spots of *normal* arsenic, which M. Orfila remarks are in *infinitely minute* proportion, the learned professor boiled a quantity of human flesh in distilled water, with potash, for five hours; the decoction, strained and evaporated to dryness, was carbonized by azotic acid. It was then boiled for half an hour in distilled water, and put into the apparatus in presence of the assembly. In a few minutes the opaque white spots were received on a porcelain plate, and handed round the amphitheatre.

To contrast the *normal* arsenic with that produced in the human flesh by absorption from the stomach, a porcelain capsule was also exhibited with numerous arsenical spots, collected from the arm of the assassin Soufflot, who poisoned himself on receiving sentence of death.

M. Orfila has made repeated experiments on the urine of patients who had taken emetic tartar for inflammation of the lungs. The antimony in such cases can always be detected by Marsh's apparatus. The spots produced are not easily volatilized; and the nitrate of antimony formed by dissolving the spot in nitric acid, and evaporated to dryness by heat, is not reddened by nitrate of silver, like arsenic.

*Detection of Arsenic in the Liver of one of the poisoned Dogs.*—The dog poisoned by twelve grains of arsenic in solution poured into the stomach, the œsophagus having been tied to prevent vomiting, was in *articulo mortis* at the expiration of four hours. His liver was taken out, and M. Orfila directed attention to the fact, that the stomach and intestines had not been perforated so as to give issue to the poison. If, therefore, arsenic was found in the liver, its presence could only be accounted for by absorption in the regular way, through the circulation. One fourth of the liver was cut into minute portions, and dried in a porcelain capsule over a charcoal fire, then carbonized by nitric acid, and boiled in

distilled water. The decanted liquor was put into the hydrogen bottle, and in a few seconds the spots were deposited on the porcelain capsule.

The liver of the healthy dog treated in the same manner gave no trace of arsenic; and, as this result has been constantly witnessed, it may be inferred that the healthy liver contains no *normal* arsenic, although the metal in a modified form has been found in human flesh and bones.

One of the experiments made upon three fourths of the liver of the poisoned dog, produced fewer arsenical spots than that upon the fourth. This was owing to the carbonization having been effected by deflagration with nitrate of potash, which, from the intensity of its flame, had volatilized a portion of the metal. The nitrate of potash, therefore, is only to be adopted when the carbonization cannot be completed by azotic acid, in consequence of the parts having been more or less converted into *adipocire*, or, as M. Orfila says, saponified.

A caviller has publicly affirmed, that arsenic may be developed in the soft parts by putrefaction, although it might not exist, or be discoverable, in the normal state. A paper was, therefore, addressed to M. Orfila, by one of the academicians, requesting that an experiment might be made on a putrid liver, in order to settle this question. At the meeting of Nov. 1, M. Orfila had provided a liver, which had been in the dissecting room of the faculty for twelve days, and was in an advanced state of putrefaction on the day of meeting. In order to afford a greater chance of collecting the arsenic, if any should exist, it was resolved to carbonize the whole of the liver, instead of taking the dried residuum of its decoction, as in the former experiment on the sound liver. The whole was, therefore, carbonized by nitric acid in presence of the commission of the Academy of Sciences; which was not effected without much difficulty, in consequence of the change undergone by putrefaction. The mass was then boiled in distilled water, and the decoction was placed in Marsh's apparatus, in presence of the audience. Not an atom of arsenic could be traced. M. Lepelletier, as one of the commission of the Academy, tried his hand in directing the flame of the hydrogen upon the porcelain plate; but nothing was produced, excepting a number of *white spots, which are furnished by animal matter*. As this experiment is not a solitary one, M. Orfila maintains that *normal arsenic is not to be found in the liver, whether it be putrid or fresh*.

When the person poisoned by arsenic has taken emetic tartar for the purpose of producing vomiting, the blood, the organs and the urine will contain both the metals, which may be reproduced by Marsh's apparatus. The aspect of the mixed metals will vary according to the proportions in which they respectively exist. In order to illustrate this, M. Orfila exhibited the results of different proportions of the respective metallic solutions on a porcelain plate; from two drops of a concentrated solution of emetic tartar for instance, to two of arsenic, then 2 to 3, 2 to 4, &c., the arsenic being the increasing substance. Another series was formed out of larger quantities, beginning with 9 grains of arsenic to 9 of emetic tartar, then 9 to 10, 9 to 11, &c., the ascending series being the antimonial salt.—*Lancet*.

# A CASE RESEMBLING FUNGUS HÆMATODES SUCCESSFULLY TREATED.

REPORTED TO THE MEDICAL SOCIETY OF TENNESSEE, BY SAMUEL HENDERSON, M.D.

THE following case of fungus hæmatodes occurred in a lady, Mrs. L., ninety-two or three years of age, of full habit, and tolerable health.

Oct. 14th, 1838. I was called to see the patient, who about one year previously discovered a projection from the centre of the forehead, covered with a hard horny scab, which, when removed, left a small fleshy tumor, of a soft, spongy, elastic feel, moveable, not discolored, and but slightly painful. Gradually enlarging in size, the old lady became very uneasy. At the time I saw her the tumor had grown to the size of a dollar in diameter, and projecting irregularly half an inch above the surrounding integuments with small openings or fissures over its exterior portion, having the appearance of rough contused, or lacerated edges, of a dark red color, yielding to pressure, but soon resuming its former state, and discharging a thin, bloody or ichorous humor, extremely offensive. It had occasionally stinging or darting pains, as she described them. Upon examination, we advised extirpation of the tumor, to which she strongly objected. We then applied mild dressings, and pressure by means of a bandage. Afterwards we used escharotics and caustics, which retarded its growth for a time; but when they were omitted, it spouted out like a mushroom. From the extreme uneasiness of the patient, and her great aversion to extirpation, I determined on trying to destroy the substance by some arsenical preparation, with which view its surface was slightly and frequently touched with Fowler's solution. In a few days the part turned dark, became gangrenous, and sloughed down to the periosteum; and by means of mild dressings, and adhesive plasters, the ulcer healed kindly, leaving no trace of disease, except a small ulcer on the nose of the same nature, and two or three small prominences on the face having the appearance of the former.—*Western Jour. of Med. and Surg.*

## LEAD RHEUMATISM OR NEURALGIA.

[THE October No. of the British and Foreign Medical Review contains a notice of a new work by M. Tanquerel on the diseases produced by lead, from which we take the following remarks on one of these diseases.]

The term *arthralgia*, employed by the author to designate this affection, which he defines as signifying "neuralgic pains in the limbs from lead," is an objectionable one, as, from its previous use in medical language, it conveys the meaning of the affection being one of the joints; the sense, however, in which it is employed in the work under notice, is to designate "acute pains in the limbs, unattended by redness or swelling, not following the exact course of the nerves, continuous, but becoming more acute in paroxysms, diminished by pressure, augmented by motion, and accompanied with disturbance of the motive functions,



such as cramps, hardness, and tension of the pained parts."—(P. 493.) It is, in short, nothing more than the spasms or cramp-pains of the lead colic affecting the muscles of the limbs instead of those of the abdomen, and is most commonly a mere extension of that disease, although occasionally observed separate. It has not been generally recognized as a distinct disease by authors, although we occasionally find it described or alluded to, and not unfrequently, as a rheumatic affection. According to M. Tanquerel, arthralgia is, with the exception of colic, the most frequent result of lead poisoning; he states that he has had occasion to see 755 cases (752 in the table of occupations, see p. 331), of which number 201 were uncomplicated; in the remaining 544 it was associated either with colic, with paralysis, or with cerebral disease. As a general observation it may be stated that the liability of workers in lead to contract this affection is in direct proportion to their liability to suffer from colic; there is, however, one remarkable exception, the reason of which is not very obvious, in the case of the manufacturers of red lead. By reference to the table of occupations which we have before given, it will be noticed that the red-lead works afforded 63 cases of colic, or about one twentieth of the whole number; whereas the number of cases of arthralgia from the same manufactories, was 104, or nearly one seventh. It should be observed, also, that 68 of the 201 uncomplicated cases of arthralgia, that is, one third of the number, occurred in red-lead manufacturers.

The pain, which is the most important symptom, occupies most frequently the lower extremities, then the upper extremities, the loins, the parietes of the chest, the back and the head. Of the 755 cases, in 485 the pain was confined to the lower extremities, in 88 to the upper extremities, in 18 to the loins, in 5 to the chest, in 4 to the back and neck, and in 3 to the head. In 108 it was simultaneously experienced both in the upper and lower extremities, in 35 in the trunk also, and in 9 the head as well as the limbs and body generally was affected.—(P. 503.) The flexor muscles are, according to M. Tanquerel, more frequently the seat of pain than the extensors, the affected muscles in either case being strongly and spasmodically contracted, and their powers of motion greatly impeded; an exacerbation of the pain often occurs during the night, but there is neither preternatural redness, heat, or swelling of the parts, and the circulation is stated to be for the most part undisturbed. Yet we are also told that in 55 of the cases of simple arthralgia, that is, upwards of one fourth of the number of cases of this description, the pulse was found to be hard, slow, vibrating, and in 17 of them irregular.—(P. 510.)

The arthralgia from lead is distinguished from acute rheumatism by the absence of any swelling or redness of the joints, by the pain being relieved rather than increased on pressure, by its sudden and complete intermissions, and by the want of fever and of complication with pericarditis and endocarditis; we cannot, however, coincide in the opinion of the author, that the diagnosis is further established by rheumatism usually attacking one member only or the arm and leg of opposite sides, the arthralgia almost always affecting two parallel members. Neither



are we disposed to think that chronic rheumatism is so essentially erratic, changing from one limb to another, as to enable us to distinguish between this affection and the arthralgia from lead, whose locomotive inclinations are exerted, we are told, only within the ring fence of the limb in which it has taken up its abode. The effects of pressure and the stiffness of the joints in the former of these diseases are much better points whereupon to found a diagnosis. From simple neuralgia the course of the pain, which in arthralgia rarely follows that of the nerves, is sufficient to distinguish it, even in the opinion of M. Tanquerel, who nevertheless elsewhere asserts that these pains as well as those of the abdominal affection are neuralgic in their nature; and from syphilitic pains in the bones it is sufficiently distinguished by these last following the course of the bones, and being usually attended by thickening of the periosteum or the characteristic nodes.

No appreciable change was observed, either in the spinal marrow or in the local seat of pain, in any of the fatal cases in which arthralgia had been present. In the instance before alluded to, as having been the subject of experiment by M. Devergie, the muscles of the calf of the leg were analyzed, and the presence of lead in these parts was detected. With respect to the nature and seat of this affection, M. Tanquerel thinks that the disease is a neuralgia of the filaments of the nerves of sensation, differing only from lead colic in the part which it occupies. The same treatment has been recommended in arthralgia as in the colic from lead, but, according to this author, is not followed by equal success. He advises the employment of sulphureous baths daily for seven or eight days, from five to six ounces of the sulphuret of potash being used in the preparation of each bath. Of 86 individuals thus treated 80 were cured in from four to five days, whereas of 80 persons treated by purgatives and opiates, 58 only were cured in from six to eight days, the remaining 22, having experienced no relief, got rapidly well under the use of the sulphureous baths.—(P. 523.)

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#### MALFORMATIONS OF THE IRIS.

CERTAIN defects of formation are sometimes observable in the iris. The most common is that known by the appellation *coloboma iridis*. In this case the pupil is of a pyriform shape, the base being towards the centre of the iris, and the apex towards its ciliary margin. I have never observed it, except at the inferior portion of the iris; but Mr. Middlemore states that he has seen it in other directions. There is, of course, an actual deficiency of the texture of the iris at the point where this peculiarity is noticed. It is also stated, that in many cases there is a fissure in the choroid and retina corresponding to that of the iris. In a case which I had recently an opportunity of inspecting after death, no deficiency was observable except in the iris itself. This case I saw immediately after the birth of the child; the deficiency of the iris, which affected both eyes, was attended with a similar defect of the upper lip and of the palate; and on the cornea of the eye there was an opacity of about the size of a pin's head, such as is seen to be the result of a

small ulcer or pustule of that texture, affording another instance of diseased action during the uterine period of existence. The child lived but a few hours; and I was enabled to make a preparation of one of the eyes, which shows this peculiarity of the iris very well. In another case, a patient of my colleague, Mr. Windsor, this defect of the iris was complicated with an opacity of the capsule of the lens in each eye, which, however, was very small (*cataracta stellata*), and did not appear to interfere with vision, the pupil contracting and dilating as usual. This malformation is usually seen in both eyes, but I have very lately seen an instance in one eye only.

A singular case, which I will briefly mention, came under my notice some time since, which at first sight appeared to be precisely of the above description; but, on closer inspection, it was manifest that the deficiency, which was exactly in the position, and of the size and figure of coloboma iridis, was confined to the anterior laminae of the iris, and that the uvea was presented to view, being of a very dark brown color; the pupil, in reality, being perfectly round, of the natural size, and contracting and dilating in a regular manner; the rest of the iris, and the eye generally, presented a natural and healthy appearance. This curious condition, beyond all question, was congenital, as the eye had never suffered from either injury or disease. It was only observed in one eye.

Other deviations from the ordinary form of the pupil are occasionally noticed; thus, in addition to a pyriform or oval shape, sometimes a rectangular, or other more irregular form has been witnessed; and, sometimes, a double pupil has been observed—all congenital.

Not only are there partial deficiencies of the iris, but we likewise occasionally meet with instances of its entire absence; and, in other cases, a small ring of iris around the ciliary margin is alone observable. I have not witnessed more than three instances of total deficiency of the iris. In each, vision was evidently very imperfect, although the children seemed to notice many objects, particularly such as were lustrous. The eyes of such individuals have a dark slate-colored appearance, when viewed through the cornea, and they have that peculiar oscillatory motion observed in children who are born with defective vision, and are likewise much confused by exposure to a moderately powerful light. In some instances the crystalline lens is also more or less opaque, and other morbid accompaniments are occasionally noticed. This condition may be improved by the patient being made to wear a frame fitted to the eyes, with a central aperture for the transmission of a regulated supply of light.—*Walker's Lectures on the Eye.*

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## BOSTON MEDICAL AND SURGICAL JOURNAL.

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### ANTHELMINTICS.

ALTHOUGH a multitude of drugs are classed amongst and prescribed as anthelmintics, it is very generally admitted that but very few of them

really possess any activity, or can be relied upon in practice. The question is proposed—are there any articles belonging to the vegetable kingdom, the growth of the northern States, which act specifically as anthelmintics? If so, those possessed of the information, based upon personal experience, will confer a peculiar favor in making it known through this Journal. One says that the submuriate never fails; another speaks as decidedly of turpentine; and yet cases are constantly occurring in which these, and indeed everything else, commonly used, are wholly inert. If, therefore, any new preparation has been discovered, or any old one found to be truly a specific, it should be made known for the common benefit of all.

*Medical Catalogue of Harvard University.*—This school is certainly beginning again to be appreciated as it should be. The class is quite large, and embodies the elements of future medical character of no ordinary kind. Nothing is more preposterous in our northern students than courting over the whole country in search of medical lectures, when equal or superior advantages are attainable in the metropolis of Massachusetts. The catalogue, which is neatly printed, shows an increased attendance the present season, quite flattering to the Mason-street School, and gratifying to all who take an interest in the success of our own institutions. If we could only be permitted to publish a synopsis of the daily lectures, through the term, it would quadruple the matriculations, it is believed, before many years. The success of the London schools is mainly owing to the published reports of the professors.

*List of Physicians in the Boston Almanac.*—In Mr. Dickinson's very valuable little annual, which contains some of everything useful to a citizen of Boston, there is a catalogue of the physicians of the city, by no means satisfactory to a majority of the brotherhood, as there are thrown together in it the irregular as well as the regular practitioners, *en masse*. This is entirely unusual, inasmuch as it seems to carry, upon the face of the matter, the idea that the learned and unlearned, general adventurers and quacks in physic, whether accredited as physicians or not by a discriminating public, now swim most harmoniously together. It is now too late to remedy the error this year, so far as the present catalogue is concerned. In extenuation of this glaring fault, it is said that the man employed to traverse the streets to collect the names for the Almanac, without making any discrimination between the reputable, established practitioners, and the scores of steamers, corn-curers, and other odds and ends, put down every name that had a doctor's sign attached to it, and thus made up a list of the Boston faculty of medicine. Residents of the city will not be misled by it; but strangers must think that peculiar harmony exists here among most discordant materials, since all sorts of ignoramuses have apparently been taken into cordial fellowship. Separately from this mistake, the publication referred to is exceedingly useful, and cannot be otherwise than extensively patronized by the very class of gentlemen who feel themselves aggrieved in being chronicled in company with some who are considered arrant knaves and impostors.

*Operations for Strabismus.*—So frequently are the muscles of the eye now divided, that there is no curiosity excited by a repetition of the details.

This is certainly an unfortunate state of feeling: very careful record should still be made of each operation, and all the circumstances minutely related, and in this way improvements may be made. It is believed that the success in this country, since the operation was first performed, scarcely one year ago, equals that in any part of Europe. In point of expertness, no one pretends to say that the American surgeons are inferior to those of the old world.

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*Biography of the late Dr. Palmer.*—A memoir of the late Dr. Palmer, whose death was announced some months ago, is fully expected from some gentleman with whom he was officially connected. It will be recollected that Dr. Palmer lost his life in consequence of inhaling sulphuric acid, while delivering a lecture on chemistry—a department of science to which he had devoted many studious years. It appears from the prospectus of the Vermont Medical College, that a son of Dr. Palmer has been elected to the chair, once so ably filled by his father.—No one is better qualified to do justice to the memory of Dr. Palmer, in an obituary notice, than Dr. Childs, of Pittsfield.

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*Memoir of Joseph Parrish, M.D.*—Dr. Geo. B. Wood read a well-written paper on the life and character of the late Dr. Parrish, before the Medical Society of Philadelphia, on the 23d of October, which has been kindly sent to the North by Dr. Bond, who will please accept our thanks for the attention.

The subject of the memoir seems to have been distinguished for all those excellent qualities which constitute the highest grade of medical practitioners. He was honest, ambitious, conscientious and indefatigable in the course of duty. He was born on the 2d of Sept., 1779, and died March 18th, 1840. "The almost unprecedented array of his fellow citizens," says Dr. Wood, "who attended his remains to the grave; the general expressions of regret for his loss; and the measures taken by the various bodies to which he belonged, to procure some public commemoration of his worth and services, are evidences of the general esteem and affection, such as seldom fall to the lot of individuals unconnected with public life. Perhaps no one was personally known more extensively in the city, or had connected himself by a greater variety of beneficent services with every ramification of society. It is true that no marble has been erected over his remains, and that the very spot where they are laid will soon be undistinguished to every eye save that of conjugal or of filial love; yet the remembrance which he left behind him, the only monument which the rules of his unostentatious sect allow, is far more precious than the praises of carved stone, which gold may purchase or power command."

Dr. Wood has exhibited the moral traits of that eminent and accurate man in a delightful manner. Well may the profession of Philadelphia mourn over the loss of one who was a friend and a ready counsellor. Dr. Parrish was not extensively known in New England—but when this highly-finished biographical sketch is generally read here, we shall no longer be ignorant of his fame.

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*Hemorrhage from Leech-bites.*—Many years ago, says a writer in a foreign medical periodical, I was summoned in the utmost hurry to a little

patient affected with croup. A medical gentleman, now no more, had opened the jugular vein, and by no means he could devise could he arrest the flow of blood; he was anxiously waiting for my arrival, with his finger on the orifice. I instantly asked for a needle and thread; and, taking up a sufficient portion of the integument on each side of the incision, stopped the bleeding at once! I should have taken up portions of the conjunctiva on each side of the incision made in the operation for strabismus, in precisely the same manner, on finding that to arrest the flow of blood externally, produced no injurious effects within the orbit.

But the same measure may be more frequently useful, and indeed necessary, in the case of leech-bites. If the usual modes of proceeding do not succeed, I advise the integument on each side of each leech-bite to be taken up by a needle and thread, and a knot to be tied, with just such force as effectually to arrest the hemorrhage, and not to give too much pain.

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*Induction of Premature Labor.* By WILLIAM SMALL.—A. D., a poor married woman of this town, 32 years of age, and of plethoric habit, came to my house some time in the month of June last, for the purpose of securing my attendance in her approaching confinement. Having come from another part of the country, I, of course, very naturally inquired into her past history. I found she had had six labors and three miscarriages. Her labors had been very severe, owing, as her medical attendant informed her, to the great size of her children. In fact, during her last labor, the child's head was born twenty minutes before the body; whilst such was the exhaustion consequent upon the process, that her life was despaired of. The longest time that any of her children lived was an hour.

Having thus obtained a view of the nature of the case, I thought that this was not an improper one for the induction of premature labor. I propounded my views to my patient, and very readily obtained her consent. About the beginning of the seventh month I waited upon her at her residence. She had for some time been taking, at my request, a dose of castor oil twice a week. I found her very well in health. I proceeded by introducing my hand into the vagina, insinuating my forefinger within the os uteri, and detaching the membranes from as considerable an area as I could reach. Having done this, I desisted, and left the patient to her repose. Hearing nothing of her, I called again on that day week, and repeated my manipulation. I was not prepared instrumentally to rupture the membranes, or I should have done it. In a fortnight after this last interference, labor came on. I was sent for at about 3 o'clock, A. M., on the morning of Aug. 1st, 1840, and found the labor advancing in the most satisfactory way. By the time I had been a quarter of an hour in the house the child was born; the mother recovered without an untoward symptom; both she and her little one have been this day to my house, and are doing remarkably well.—*Lancet*.

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*Carcinoma of the Clitoris.*—At a meeting of the Westminster Medical Society a morbid specimen was placed upon the table, consisting of the external parts of generation, the uterus and appendages, of a lady, about 45 years of age, who had died from what had been considered carcinoma of the clitoris. The disease first came under the observation of the medical attendant in February last. On examination he discovered

that the clitoris was much enlarged, hard, very sensible, and partly blocking up the vagina. Ulceration soon began to exhibit itself at the extremity of the clitoris, which soon became destroyed. The ulceration spread quickly to the nymphæ, and eventually quite to the ossa pubis. The patient sunk from the effect of this disease upon the system. The internal organs were healthy: the uterus and appendages were also free from disease. The treatment latterly had been merely palliative. On one occasion she had employed a strong solution of opium as a local application to the part; this caused retention of urine and constipation for two days.—*Ibid.*

**Use of Tobacco.**—The following is a vivid description of the miseries which the habit of smoking entails upon the Germans, and which can only be prevented in the United States by turning the current of public opinion against the practice.

"This plague, like the Egyptian plague of frogs, is felt everywhere, and in everything. It poisons the streets, clubs, and the coffee-houses—furniture, clothes, equipage, persons are redolent of the abomination. It makes even the dullness of the newspapers doubly narcotic; every eatable and drinkable, all that can be seen, felt, heard, or understood, is saturated with tobacco—the very air we breathe is but a conveyance for this poison into the lungs; and every man, woman, and child, rapidly acquires the complexion of a boiled chicken. From the hour of their waking, if nine-tenths of their population can be said to awake at all, to the hour of their lying down, the pipe is never out of their mouths. One mighty fumigation reigns, and human nature is smoked dry by tens of thousands of square miles. The German physiologists compute that of twenty deaths between eighteen and thirty-five years, ten originate in the waste of the constitution by smoking."

"The use of tobacco," says a popular writer, "in any form, deranges and sometimes destroys the stomach and nerves, produces weakness, low spirits, dyspepsia, vertigo, and many other complaints. These are often its immediate effects. Its remoter effects are scarcely less dreadful. It dries the mouth and nostrils, and probably the brain; benumbs the senses of smell and taste, impairs the hearing, and ultimately the eye-sight. Germany, a *smoking nation*, is at the same time a *spectacled nation*."

**New Mode of treating Vesico-vaginal Fistula.**—Dr. Reid exhibited at a meeting of the Westminster Medical Society, an instrument which he had employed with success in cases of vesico-vaginal fistula. The apparatus consists simply of an India-rubber bottle, to the neck of which is attached a stop-cock and a condensing syringe. The bottle is introduced into the vagina in a collapsed state; it is partly filled with air by its own elasticity; its size is afterwards increased to any extent which is necessary by the use of the syringe; by this means the aperture was so entirely filled up, that no urine could possibly escape, provided the bottle was air-tight. By the employment of this means, Dr. Reid had succeeded in curing one case of vesico-vaginal fistula, which had existed for six years; and in another case of some standing, the aperture was so much diminished that a cure would no doubt be effected. The bottle he had frequently, also, employed as a common pessary, and had found it of much service. It required to be removed at night for the purpose of being cleansed.

He had thought for some time that this mode of treating vesico-vaginal fistula had never been employed previous to the time he first commenced its use; but his attention had been lately directed to an article in the 6th volume of the "Medico-Chirurgical Transactions," by Mr. Barnes, of the Exeter Hospital. This gentleman, it appeared, had so long ago as 1816, succeeded in curing a case of the fistula in question, by keeping a common India-rubber bottle, with a piece of sponge sewn on the part which was to come in contact with the fistulous opening, constantly in the vagina. In this case, however, the inconveniences were great and discouraging. Thus it was stated, that whenever the bladder required to be evacuated, the sponge had to be depressed with the finger; and if the catheter were not employed every two hours, the urine dribbled through the opening. With the use of the simple apparatus, which he (Dr. Reid) had that evening exhibited, these inconveniences were all avoided.—*Lancet*.

**Instrument for the Operation for Squinting.**—By CHARLES BROOKE.—The instrument resembles a small curved director attached to a handle, with a sharp-pointed, curved bistoury blade sliding in the groove. The blade and groove are accurately portions of a circular arc, comprising rather more than one sixth of a circle, the diameter of which is one inch and a quarter. The groove gradually deepens from the point to the handle, so as to conceal the taper-pointed blade, when withdrawn a little; and is continued through the solid part of the handle, to give steadiness to the motion of the blade. I have used this instrument with complete success in more than a dozen cases, without the aid of any accessory instruments for fixing the eye or eyelids; my mode of operating being simply to make a small opening in the conjunctiva with a pair of probe-pointed scissors, through which the director is introduced and passed under the tendon to be divided; the blade being passed forward with the point of the forefinger, completes the operation.—*Ibid*.

**Medical Miscellany.**—The board of surgeons appointed to inquire into the relative advantages of Pittsburgh and Wheeling, as a site for a marine hospital, for reasons stated at some length, reported in favor of Pittsburgh. —A deaf and dumb man of Louisville, so say all the papers, who had been educated here at the north, fully believing that he might have an operation performed by which he might hear, constructed an instrument himself, and punctured the drum of one ear, and was instantly enabled to hear sounds.—The anomalous disease spoken of last week, as manifesting the most alarming fatality in West Tennessee, is now considered the spotted fever—or, as some call it, *high typhus*.—Dr. Hayward, of Boston, speaks in terms of praise of Dr. Fletcher's truss, as may be seen in an advertisement in this day's Journal. It has been before the public a long while, and seems to be a favorite instrument.

Number of deaths in Boston for the week ending Jan. 9, 33.—Males, 19—females, 14. Stillborn, 2.

Of consumption, 5—croup, 1—measles, 1—fits, 2—typhous fever, 1—infantile, 2—old age, 3—dropsy, 3—inflammation of the lungs, 2—lung fever, 1—cancer, 1—hooping cough, 3—tumor in the stomach, 1—dropsy on the brain, 2—dropsy on the heart, 1—throat distemper, 1—teething 1.

#### FLETCHER'S TRUSS.

The following recommendation of this truss has lately been received by the proprietor.

The subscriber having made frequent trials of the truss invented by Dr. Fletcher, has no hesitation in saying that he regards it as superior to most instruments of the kind now in use, with which he is acquainted. Its advantages consist in the size and form of the pad, the ease with which it is moved, and the readiness with which the pressure is increased or diminished. It is moreover in his opinion as well calculated as any other to produce radical cure of Hernia.

Boston, Jan. 7th, 1841.

Jan. 13.—

GEO. HAYWARD.



## REGISTER OF THE WEATHER.

Kept at the State Lunatic Hospital, Worcester, Ms. Lat.  $42^{\circ} 15' 49''$ . Elevation 483 ft.

1946. Dec.	THERM.			BAROMETR.			Wind, 3, P.M.	Weather, 2, P.M.	Remarks.
	m	a	d	m	a	d			
1 Tues.	39	23	33	30.33	30.60	30.67	NW	Fair	
2 Wed.	16	34	34	30.73	30.70	30.69	NW	Fair	
3 Thurs.	39	42	39	30.65	30.61	30.73	NW	Fair	
4 Frid.	16	32	33	30.85	30.96	30.65	N	Cloudy	Beautiful sunset.
5 Satur.	16	19	17	30.56	30.29	30.38	N	Fair	Halo around the moon. High wind.
6 Sun.	19	18	14	30.39	30.64	30.59	N	Snow	Great snow storm.
7 Mon.	36	34	38	30.46	30.41	30.65	NW	Fair	
8 Tues.	36	30	38	30.60	30.54	30.50	NW	Fair	
9 Wed.	34	40	41	30.49	30.43	30.41	NW	Fair	
10 Thurs.	34	40	45	30.37	30.35	30.39	NW	Fair	Beautiful sunset.
11 Frid.	31	47	38	30.48	30.53	30.57	NW	Fair	
12 Satur.	36	35	36	30.64	30.43	30.39	N	Cloudy	
13 Sun.	36	46	46	30.10	30.33	30.30	SE	Rain	Dark, foggy day.
14 Mon.	36	40	40	30.09	30.10	30.11	W	S	Very pleasant day.
15 Tues.	30	40	43	30.14	30.16	30.15	S	Fair	White frost. Sun set in a cloud.
16 Wed.	40	40	36	30.10	30.13	30.11	NW	Cloudy	Snow storm commenced 10 m. past 3, P. M.
17 Thurs.	37	30	36	30.30	30.24	30.07	NW	Fair	High wind—snow squall.
18 Frid.	14	21	14	30.37	30.37	30.37	NW	Fair	At 3, P. M. thermometer 5°.
19 Satur.	13	20	24	30.34	30.35	30.38	NW	Fair	Squally. Aurora borealis.
20 Sun.	17	30	26	30.34	30.34	30.37	NW	Fair	Snow squall in the night.
21 Mon.	35	32	23	30.35	30.44	30.58	NW	Fair	Snow squalls. Aurora borealis.
22 Tues.	15	30	30	30.35	30.03	30.00	NW	Snow	Fair in the evening.
23 Wed.	14	30	30	30.30	30.70	30.39	NW	Fair	Beautiful sunset.
24 Thurs.	35	32	18	30.03	30.18	30.30	W	Fair	
25 Frid.	3	10	14	30.37	30.30	30.39	NW	Fair	
26 Satur.	10	18	15	30.28	30.16	30.03	N	Snow	Storm commenced at 8, A. M.
27 Sun.	31	04	04	30.30	30.60	30.06	NE	Cloudy	Snow fell 15 inches in 24 hours.
28 Mon.	14	20	14	30.23	30.30	30.30	N	Snow	Beautiful sunset. Aurora borealis.
29 Tues.	17	24	20	30.51	30.54	30.54	W	Fair	Aurora borealis.
30 Wed.	30	33	38	30.40	30.61	30.58	S	Snow	Snow storm commenced 15 m. past 1, P. M.
31 Thurs.	26	37	37	30.50	30.47	30.47	SW	Cloudy	Foggy. Thaw.

December has afforded much wholesome winter weather. Much snow has fallen, and the present supply (Jan. 1) is abundantly sufficient to make good sleighing, amounting to 19 or 15 inches. Range of barometer, from 29.96 to 28.99; thermometer, from 9 to 48.

**MEDICAL SCHOOL OF MAINE.**

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Theory and Practice of Physic, by . . . . .  
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Degrees are conferred at the close of the Lecture Term in May, and at the following Commencement of the College in September.  
P. CLEVELAND, *Secretary*.  
Brunswick, October, 1840. D. 2.—61

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August, 1940.

A. 26.—124

JOSEPH BATES, Litchfield.  
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